

定制OSA组件

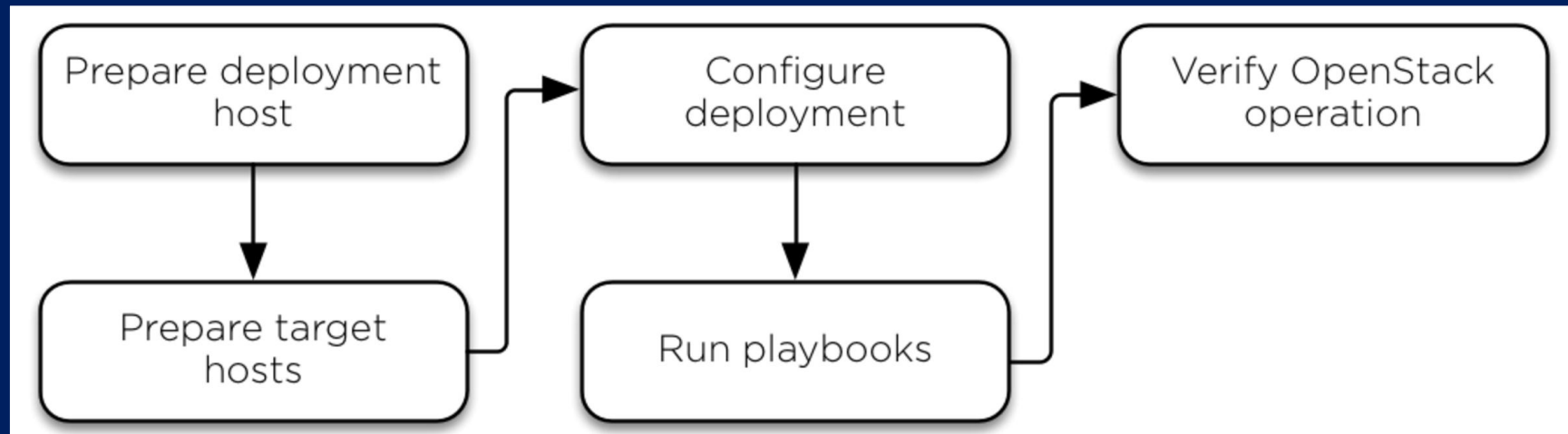
肖瑞国

石化盈科信息技术有限责任公司
专家级架构师

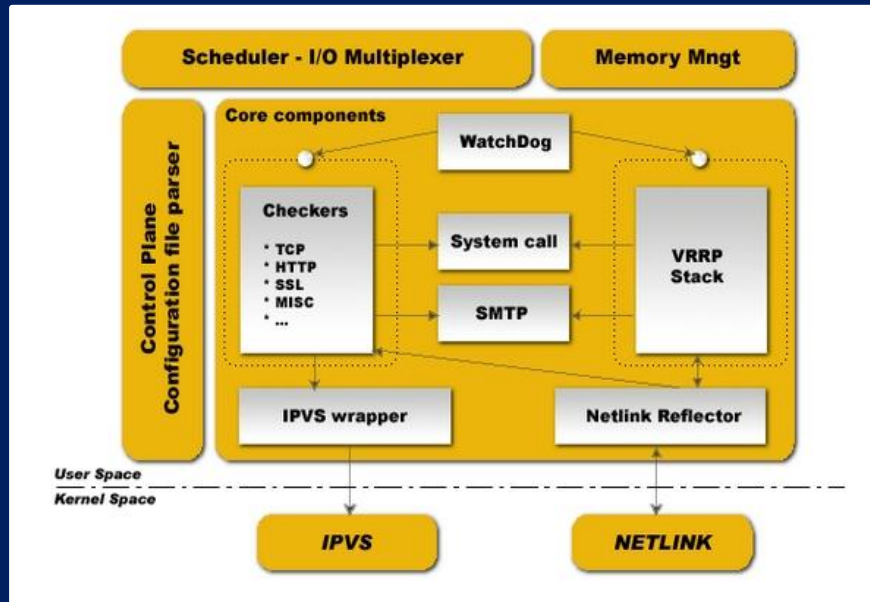
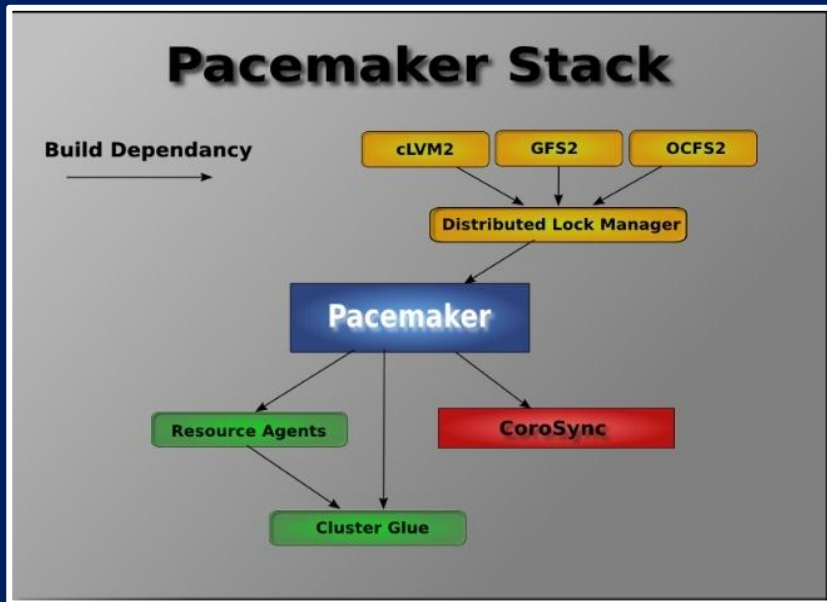


关于OSA

OpenStack-Ansible (OSA) uses the [Ansible](#) IT automation engine to deploy an OpenStack environment on Ubuntu Linux. For isolation and ease of maintenance, you can install OpenStack components into Linux containers (LXC).



基于 Corosync (cluster manager) 和 Pacemaker (cluster resources manager) 开发 OpenStack Ansible(OA)的高可用集群组件，替换Keepalived



初始环境: 3 个控制节点

```
# git clone https://github.com/openstack/openstack-ansible.git -b stable/queens
```

```
# vi openstack-ansible/playbooks/setup-infrastructure.yml
```

```
17 - include: repo-install.yml
18 - include: haproxy-install.yml
19 # TODO(evrardjp): Remove the following when repo_build is done
20 # before lxc_container_create, and haproxy is moved with it as
21 # second step.
22 - include: repo-use.yml
23 include: util-ansible-install.yml
```

```
# vi openstack-ansible/playbooks/haproxy-install.yml
```

```
31 roles:
32   - role: "keepalived"
33     when: haproxy_use_keepalived | bool
34     tags:
35       - keepalived
36   environment: "{{ deployment_environment_variables | default({}) }}"
37   tags:
```

不要重复发明轮子!

[openstack-ansible-corosync_pacemaker](https://github.com/xiaoruiguang/openstack-ansible-corosync_pacemaker.git)

https://github.com/xiaoruiguang/openstack-ansible-corosync_pacemaker.git



Configure basic Linux High Availability Cluster in Ubuntu with Corosync

<https://scubarda.com/2016/10/30/configure-linux-high-availability-cluster-in-ubuntu-with-corosync/>



[openstack-playbook/roles/corosync_pacemaker/](https://github.com/d0m0reg00dthing/openstack-playbook.git)

<https://github.com/d0m0reg00dthing/openstack-playbook.git>

Configure basic Linux High Availability Cluster in Ubuntu with Corosync

<https://scubarda.com/2016/10/30/configure-linux-high-availability-cluster-in-ubuntu-with-corosync/>

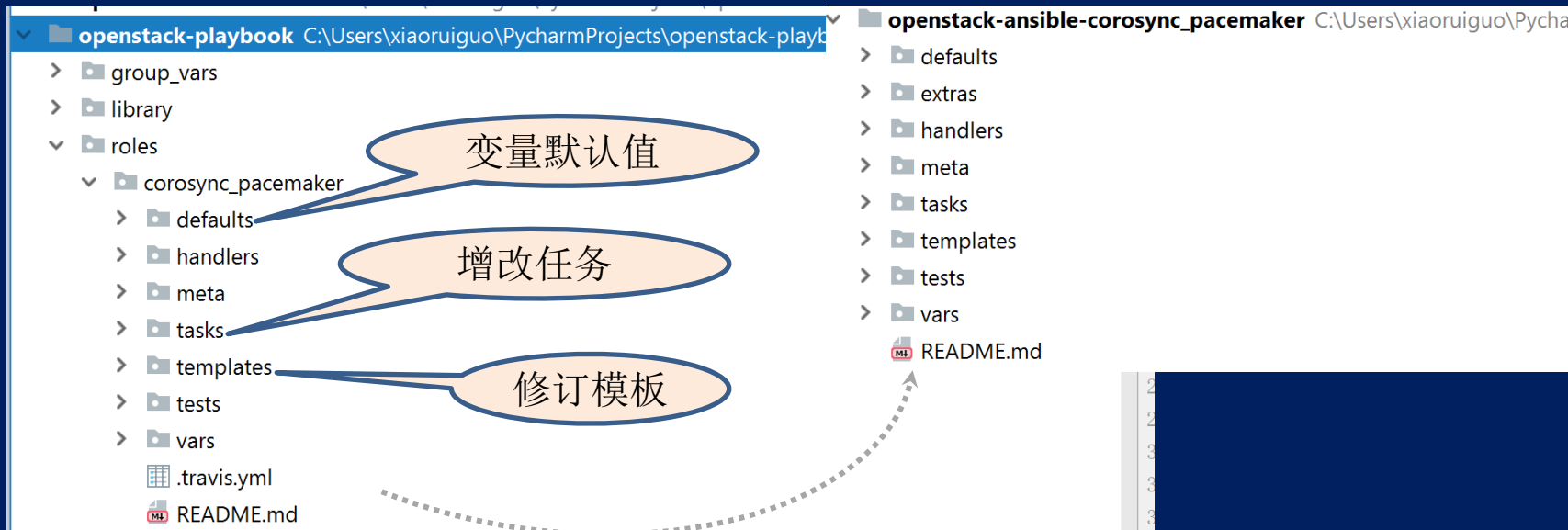
- ① 安装需要的包
- ② 生成集群节点共享的KEY
- ③ 配置集群的成员、绑定的IP和其他信息
- ④ 配置corosync使用集群资源管理器
- ⑤ 设置corosync的Start参数值为yes
- ⑥ 启动corosync服务，并验证
- ⑦ 配置pacemaker(crm - Cluster Resource Manager)
- ⑧ 使用crm应用检查服务状态
- ⑨ 为pacemaker增加资源代理(**Resource Agents**)
- ⑩ 配置VIP
- 11 ? ? ? 配置Haproxy
- 12 ? ? ? 配置vip和haproxy节点共置

如何配置

创建OpenStack-Ansible仓库，拷贝并修改工程代码

https://github.com/xiaoruiguu/openstack-ansible-corosync_pacemaker.git

<https://github.com/d0m0reg00dthing/openstack-playbook.git>



Ansible 技巧:

`slurp` – Slurps a file from remote nodes

`inventory_hostname` 是Ansible inventory主机文件中配置的主机名称。

New in version 2.2.

`ansible_play_hosts` 是指在当前的play中仍然活跃的完整列表。

```
- include: corosync_pacemaker_install.yml
- include: corosync_key.yml
  when: inventory_hostname == ansible_play_hosts[0]
- include: corosync_key_distribution.yml
- include: pcmk_config.yml
- include: corosync_config.yml
- include: pacemaker.yml
- include: haproxy_resource.yml
- include: pacemaker_resources.yml
  when: inventory_hostname == ansible_play_hosts[0]
```

```
- name: Store haveged key
  slurp:
    src: "{{ haveged_key }}"
  register: _haveged_key

- name: Register a fact for the auth key
  set_fact:
    haveged_auth_key_fact: "{{ _haveged_key.content }}"
```


如何使用？

```
# git clone https://github.com/xiaoruiguo/openstack-ansible-corosync_pacemaker.git
playbooks/roles/corosync_pacemaker
```

```
# cat corosync-pacemaker-install.yml
- name: corosync pacemaker base config
  hosts: haproxy ????
  gather_facts: "{{ gather_facts | default(True) }}"
  user: root
  roles:
    - role: "corosync_pacemaker"
```

```
# ansible haproxy --list-hosts
hosts (3):
  node1
  node2
  node3
```

如何使用

```
# vi playbooks/setup-infrastructure.yml
```

```
- include: unbound-install.yml
- include: repo-install.yml
- include: haproxy-install.yml
- include: corosync-pacemaker-install.yml
```

```
# vi /etc/openstack_deploy/user_variables.yml
haproxy_use_keepalived: False
```

```
# openstack-ansible setup-everything.yml
```

欢迎访问

https://github.com/xiaoruiguu/openstack-ansible-corosync_pacemaker.git

欢迎大家，进一步完善：

- ① 修改 [README.md](#)
- ② 清理僵尸代码
- ③ 增加对centos等操作系统的支持
- ④ 测试更多的控制节点
- ⑤

Thank You

